

LAYER BASED COMPRESSION OF DIGITAL IMAGES

Abstract

A method for image separation of an image, wherein the image includes pixels,
5 and the method includes identifying kernels, whereby characteristics of the kernels are
reflected by at least one of the following operators, $P(x-w,y) - P(x,y) >t$ AND $P(x+w, y) - P(x,y) > t$; or $P(x, y-w) - P(x,y) > t$ AND $P(x, y+w) - P(x,y) > t$; or $P(x+d, y+d) - P(x,y) > t$
 $AND P(x-d, y-d) - P(x,y) > t$; or $P(x-d, y+d) - P(x,y) > t$ AND $P(x+d, y-d) - P(x,y) > t$,
wherein the kernels include at least some of a first group of the pixels. The kernels are
10 associated with a first layer, and pixels that are not associated with the first layer are
classified as a second layer. The first layer may be text or graphics and the second
layer may be a background. The first layer may be compressed with a high resolution
compression technique and the second layer may be compressed with a high lossy
compression technique.

10
15